Performance Series Scores

All About Performance Series
Scores and How to Use Them

Quick Reference

WHAT type of student information is available through Performance Series? And **HOW** do you use this data?
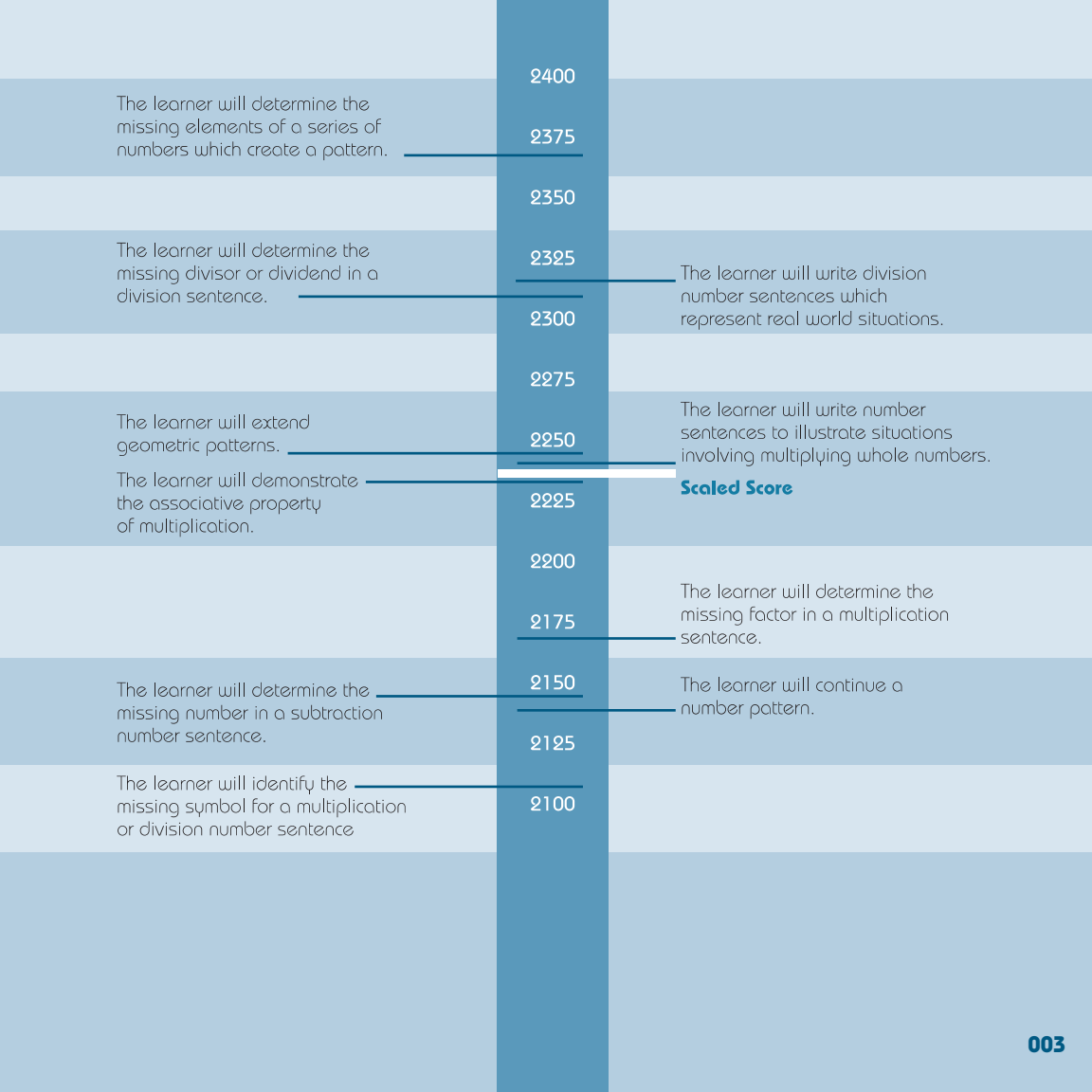
Scaled Score (SS)

The scaled score is a reliable estimate of the student's ability using the statistical Rasch model. Values can range from 1300 to 3700 in Performance Series. Most computer adaptive tests use this single-parameter model to determine a student's expected level of performance within a subject area. Performance Series tests have an average reliability of 90%.

How do you use this SS?

Use this score to track progress over time, from fall to spring or year over year, as a sort of educational yardstick. In the Fall, use Performance Series to create groups or for student placement. Used alongside state test data, the SS can give educators or students a target for specific performance levels. In the Spring, use the Gains reports (see "Gain" on page 3) to see if students hit that target.

The scaled score is the 'yardstick' to compare students to each other or themselves across time.

2400

2375

2350

2325

2300

2275

2250

2225

2200

2175

2150

2125

2100

The learner will determine the missing elements of a series of numbers which create a pattern.

The learner will determine the missing divisor or dividend in a division sentence.

The learner will write division number sentences which represent real world situations.

The learner will extend geometric patterns.

The learner will write number sentences to illustrate situations involving multiplying whole numbers.

The learner will demonstrate the associative property of multiplication.

Scaled Score

The learner will determine the missing factor in a multiplication sentence.

The learner will determine the missing number in a subtraction number sentence.

The learner will continue a number pattern.

The learner will identify the missing symbol for a multiplication or division number sentence

Standard Error of Measure (SEM)

The SEM is presented in scaled score points and identifies the +/- factor defined by the Rasch model. This number is always presented inside parentheses and is displayed for the:

• SS
• Average or Mean SS
• Gain Score
• Mean Gain Score

How do you use the SEM?

Use the SEM to establish confidence intervals around the scaled score estimates. A student with a SS of 2000 and an SEM of (50) has a score range of 1950-2050. Circled items are the Standard Error of Measure for the column and row.

Circled items are the Standard Error of Measure for the column and row.

All Subjects Summary

Report Scope: Locations
Broken Down By: Location

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Location ▲	Grade	Item Pool	Reading Student Count	Mean Reading SS	SE of Mean Reading SS	Reading Overall SIP (%)	Math Student Count	Mean Math SS	SE of Mean Math SS
Scantron School District	**Overall**		**2821**	**2777**		📊	**2821**	**2586**	
	Grade 2	Grade 2	190	**1868**	(34)	33	190	**2095**	(14)
	Grade 3	Grade 3	179	**2203**	(34)	56	179	**2205**	(15)
	Grade 4	Grade 4	170	**2465**	(31)	67	170	**2386**	(13)
	Grade 5	Grade 5	180	**2637**	(24)	69	180	**2373**	(17)
	Grade 6	Grade 6	301	**2766**	(19)	73	301	**2580**	(13)
	Grade 7	Grade 7 *	302	**2857**	(19)	72	302	**2655**	(13)
	Grade 8	Grade 8 *	299	**2903**	(20)	66	299	**2715**	(14)
	Grade 9	Grade 9 *	300	**2919**	(26)	62	300	**2672**	(16)
	Grade 10	Grade 10 *	300	**3019**	(22)	66	300	**2725**	(17)
	Grade 11	Grade 11-12 *	300	**3061**	(20)	55	300	**2764**	(19)
	Grade 12	Grade 11-12 *	300	**3089**	(24)	58	300	**2769**	(18)

Gain

The student gain score is the difference between the Fall Testing Session and the Spring Testing Session. For classes or groups this is an average, or mean, of all the students in that category. This can display as a positive or a negative number. If a student scores a 1750 in the fall and a 1905 in the spring, his gain is 155.

How do you use the gain score?

Use this score to judge knowledge "gained" within one year or to compare group or class growth within a school or district.

Additionally, use testing session scores from the Gains reports in conjunction with the national growth trajectory chart to determine if gains for the individual student or class is appropriate to the grade level.

Report Scope: Classes
Broken Down By: Class

Time
Stud

Export XLS

| Class ▲ | Student Count | Testing Period 1 (7/1/03 to 11/30/03) | | Testing Period 2 (4/1/04 to 6/30/04) | | Gain | |
		Mean SS	SE of Mean SS	Mean SS	SE of Mean SS	Mean SS Difference	SE
Grade 2 Homeroom, Sec. 1	35	1955	(22)	2071	(29)	+116	
Grade 2 Homeroom, Sec. 2	35	1977	(27)	2101	(34)	+124	
Grade 2 Reading, Sec. 1	30	1935	(23)	2054	(31)	+119	
Grade 2 Reading, Sec. 2	30	1991	(28)	2136	(31)	+145	
Grade 3 Homeroom, Sec. 1	30	2161	(34)	2241	(32)	+80	
Grade 3 Homeroom, Sec. 2	30	2163	(37)	2239	(40)	+76	

Positive gains appear in green.

Inter-Quartile Range for Growth Trajectories
Reading National Sample (25th – 50th – 75th)
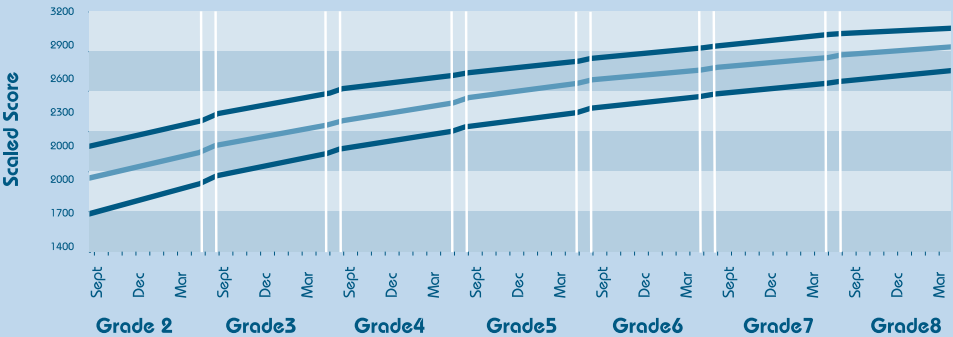
The pace of growth varies by ability level.

National Percentile Ranking (NPR)

The NPR uses the SS to compare the student to members of the Performance Series Norm Sample Group within the same grade level. The numerical value illustrates the percentage of students that the selected student would be expected to score above in norm group comparison. Different values appear for Fall and Spring test administrations to reflect different levels of knowledge for those time periods. NPRs are only available for students who tested between Aug 1 - Nov 30 (Fall norm) and Feb 15 - May 15 (Spring norm). Currently, NPR is available for Math and Reading.

How would you use the NPR?

For example, an NPR of 74 for a student would mean that his score is above 74% of his peers in the national norm group. This data is not related to state standards or comparable over time. This school scores above 36% of 2nd graders from the national sample.

Diagnostic Test Reports

Preferences · Documents · H

Math National Percentile Rankings

Close

Report Scope: Locations
Broken Down By: Location

Time Frame: 7/1/03 to 6/30/04
Student Filtering: OFF

X Export XLS

Count: 1

Location	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Scantron Elementary Central	36	42	34	6							

Time Frame	Clear	Change
Time Frame: 7/1/03 to 6/30/04		

Student Filtering: Demographics	Clear	Change
Demographic Filtering: All Included		

Student Filtering: Groups	Clear	Change
Group Filtering: All Included		

This school scores above 36% of 2nd graders from the national sample.

Standard Item Pool Score (SIP)

SIP scores express the probability of a student correctly answering each item within the item pool for his/her enrolled grade in that state.[1] For example, a fifth grade student who scores a SIP of 85 is expected to correctly answer 85% of the items aligned to the fifth grade standards. Both the overall subject score and the units are currently displayed with SIP scores.

How do I use the SIP score?

The SIP score, along with the SS, should be used to determine growth from the beginning of the year to the end. A lower SIP is expected for fall results, since they have not been instructed on that grade level material yet. A SIP of 23 in Number & Operations does not mean that a student "failed" Number & Operations. The SIP Score Table provided for each state displays the SIP scores for each SS in relation to each grade level. Find the SIP score table in Performance Series Help under each state curriculum alignment information. SIP scores are not comparable over time, since they relate to items in one specific grade level. Circled values are the SIP for that grade and subject.

All Subjects Summary

X Export XLS

	Location ▲	Grade	Item Pool	Reading Student Count	Mean Reading SS	SE of Mean Reading SS	Reading Overall SIP (%)	Math Student Count	Mean Math SS	SE of Mean Math SS	Math Overall SIP (%)	Language Arts Student Count	Mean Language Arts SS
	Scantron School District	Overall		2821	2777		📊	2821	2586		📊	2821	2597
📊		Grade 2	Grade 2	190	**1868**	(34)	33	190	**2095**	(14)	54	190	**2227**
📊		Grade 3	Grade 3	179	**2203**	(34)	(56)	179	**2205**	(15)	52	179	**2387**
📊		Grade 4	Grade 4	170	**2465**	(31)	67	170	**2386**	(13)	52	170	**2522**
📊		Grade 5	Grade 5	180	**2637**	(24)	69	180	**2373**	(17)	(32)	180	**2546**
📊		Grade 6	Grade 6	301	**2766**	(19)	73	301	**2580**	(13)	37	301	**2621**

Sort on this column

Circled values are the SIP for that grade and subject.

1. **This probability is calculated using the Rasch Model:**
"Rasch models are probabilistic measurement models which find their application primarily in psychological and attainment assessment, and are being increasingly used in other areas, including the health profession. Rasch models provide a foundation for the measurement of quantitative attributes and traits on a continuum, based on categorical data derived from interactions between persons and items. In principle, Rasch models can be applied in any experimental context in which persons interact with assessment questions or items in a manner that provides for comparisons between persons with respect to the magnitude of some attribute or trait."

Found at http://en.wikipedia.org/wiki/Rasch_model on April 20, 2006

Reading Rate

This rate is based on a silent reading rate and is calculated by counting the number of words in the passages the student read and dividing that number by the time it took the student to read those passages. This score will only be accurate if the student reads the story (by him- or herself) before clicking "I have read the story" and answering questions.

How do I use the reading rate?

When available, this score can be used as one indicator of reading fluency.Not Applicable (NA) means that either the student did not reach a level of questions thatcould measure his reading rate or the unit is not adequately represented in the state or national standards for the student's grade level. By contrast, if this had read "N/M", it means the student clicked "I have read this story" in less than 5 seconds, making Reading Rate a measure that cannot be calculated.

Not Applicable (NA) means that either the student did not reach a level of questions that could measure his reading rate or the unit is not adequately represented in the state or national standards for the student's grade level.

By contrast, if this had read "N/M", it means the student clicked "I have read this story" in less than 5 seconds, making Reading Rate a measure that cannot be calculated.

Reading Diagnostic Results

Reading Test History

Test Date: 4/15/04
Grade: Fourth **2357** *(64)*

Test Date: 9/17/03
Grade: Fourth **2278** *(64)*

Reading Test (Grade 4)	Test Date: 4/15/04

Unit	0% SIP 100%
Reading Overall	▬▬▬ 56 Scaled Score: **2357** SEM: (64)
Vocabulary	▬▬▬ 65
Fiction	▬▬▬ 56
Nonfiction	▬▬ 43
Long Passage	▬▬▬ 57

Score	Words Per Minute
Reading Rate	*N/A*

Score	0L Lexile 1400L
Lexile® Measure	▬▬ *485L*
	? *What is a Lexile® Measure?*
	? *How does it relate to grade level?*
	🔍 *Find appropriate books.*

Lexile Measure

The Lexile scale is a developmental scale for reading ranging from 200L for beginning readers to above 1700L for advanced text and is an optional feature offered through Performance Series. Matching the reader and text measures is the goal. This allows for selecting text that is targeted to a reader's reading ability, and the result is an expected 75-percent comprehension rate—not too difficult to be frustrating, but difficult enough to encourage reading progress.

How would you use the Lexile?

Numbers of reading books and subject-matter texts are aligned to the Lexile scale. This measure can be used to determine the proper reading materials at the school library or could be given to parents to locate the appropriate level books on www.lexile.com under families.

With Lexile Scores, links are provided directly to the Lexile site for immediate book searches from the Student Profile.

Reading Diagnostic Results

Reading Test History

Test Date: 4/15/04
Grade: Fourth **2357** *(64)*

Test Date: 9/17/03
Grade: Fourth **2278** *(64)*

Reading Test (Grade 4)   **Test Date:** 4/15/04

Unit	SIP 0% — 100%
Reading Overall	▬▬▬ 56 Scaled Score: **2357** SEM: (64)
Vocabulary	▬▬▬ 65
Fiction	▬▬▬ 56
Nonfiction	▬▬ 43
Long Passage	▬▬▬ 57

Score	Words Per Minute
Reading Rate	*N/A*

Score	Lexile 0L — 1400L
Lexile® Measure	▬ 485L ? *What is a Lexile® Measure?* ? *How does it relate to grade level?* 🔍 *Find appropriate books.*

015

Grade Level Equivalent (GLE)

This optional feature uses a student's overall SS and positions it on the Grade Level Equivalent Scale. Values can range from less than 2.0 (< 2.0), 2.0 to 9.9, and greater than 9.9 (> 9.9) in Math and Reading, only. Since the national norm samples were used to develop the subject-specific GLE scales, this is a national data point and does not relate to individual state standards documents. For example, a third grader in the beginning of the school year takes the Performance Series Math test. This student receives a Scaled Score of 2370—a score equivalent to performance in the 90th percentile of the fall norm group. The Scaled Score of 2370 positions this student on the Grade Level Equivalent Scale at 4.5.

How do you use the GLE?

Using the GLE score does not mean the student, in the example above, should be promoted to the fourth grade, since he/she may not have the curricular framework to do actual 4th grade work. Instead this means that the student should be challenged throughout the year with more complex materials that meet necessary state objectives at their current grade level. It also can be interpreted to mean that this state has fairly aggressive expectations for third grade, in comparison with the national norm sample.

Mathematics Diagnostic Results

Mathematics Test History

Cane, Tommy P. Grade 3

Student Scaled Score
District Average Scaled Score
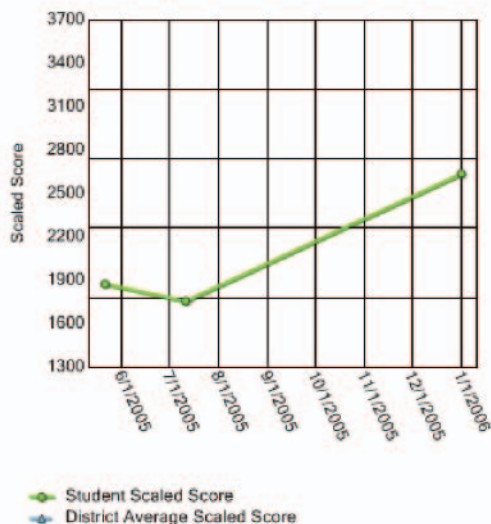
Enlarge View
Export XLS

Mathematics Test (Grade 3)	Test Date: 1/3/06

Unit	0% SIP 100%
Mathematics Overall	▬▬▬▬▬ *86* Scaled Score: **2639** SEM: (55)
Geometry	▬▬▬▬▬ *82*
Data Analysis & Probability	▬▬▬▬▬ *84*
Algebra	▬▬▬▬▬ *91*
Measurement	▬▬▬▬ *74*
Number & Operations	▬▬▬▬▬ *88*

Score	<2.0 GLE >9.9
Grade Level Equivalent (GLE)	▬▬▬▬ *7.5*

Suggested Learning Objective (SLO)

This report uses the scaled score and your state alignment guides to determine where to focus the student's learning next. Options allow you to display objectives that are expected to be mastered on future assessments alongside objectives or skills areas the student should focus to improve performance. These are always listed in the order of difficulty, the first being the least difficult.

How do you use the SLO report?

This data should direct individual interventions in the classroom based upon skills within the aligned state standards. The SLO report can assist with additional skills-based material through the study guides available in the Skills Connection Online module. SLO data is also helpful to let parents to know where their student has succeeded and how to focus their assistance to help him/her to improve.

Suggested Learning Objectives
Step 3 of 3

Close

Student

Name:	Cane, Tommy P.

Mathematics - Algebra

Targeted Instruction:

Successfully Attained

- ☑ 3AF.1.2/4AF.1.1: The learner will determine the missing factor in a multiplication sentence.
- ☑ 3AF.1.5: The learner will demonstrate the associative property of multiplication.
- ☑ 5AF.1.2: The learner will write number sentences to illustrate situations involving multiplying whole numbers.
- ☑ 2PS.2.1: The learner will extend geometric patterns.
- ☑ 3AF.1.2/4AF.1.1: The learner will determine the missing divisor or dividend in a division sentence.
- ☑ 3AF.1.1/5AF.1.2: The learner will write division number sentences which represent real world situations.
- ☑ 2PS.2.1: The learner will determine the missing elements of a series of numbers which create a pattern.
- ☑ 3MR.1.1/4MR.1.1: The learner will identify when information is missing or extraneous.
- ☑ 3MR.1.1/4MR.1.1/6MR.1.1/7MR.1.1 (HSEE): The learner will determine missing or extraneous information in problem solving scenarios.
- ☑ 5AF.1.2: The learner will identify the expression to be used in solving a word problem.

Suggested Learning Objectives

- ☐ 6NS.1.3: The learner will solve a mathematical proportion using algebraic methods.
- ☐ 6AF.1.2: The learner will evaluate a given variable expression by substituting the given values.
- ☐ ALGEBRA-1 14.0 (HSEE): The learner will solve quadratic equations in real world situations.
- ☐ 6AF.1.1: The learner will obtain solutions to one step linear equations.
- ☐ 5AF.1.2/7AF.1.1 (HSEE): The learner will determine the correct equation for a word problem and solve.

All appropriate Suggested Learning Objectives have been listed.

A list of suggested learning objectives is provided, in order of difficulty, for immediate instructional adjustment.

Scantron Technical Support

Scantron Technical Support is available to answer your support questions.

Web site: **www.scantron.com**
Voice: **(800) 445-3141**
Fax: **(949) 639-7512**
Email: **support@scantron.com**

Technical Support is available Monday through Friday, from 5:30 am to 4:30 pm Pacific Standard Time, excluding holidays.

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Training and Staff Development courses are offered onsite at customer locations or via online technology.

Schedule training sessions through one of our Training Coordinators.

Please call Scantron at **1.800.722.6876** extensions **7498 or 7531**.